

ABSTRACT

A method of manufacturing a component that will, in use, experience a thermal load and will be operated at a mean temperature, includes selecting a material having a coefficient of thermal expansion having a zero-crossing at a first temperature and manufacturing the component using the selected material at a second temperature. The first temperature is between the second temperature and the mean operating temperature. Deformation of the component at the mean operating temperature are thus minimized.

A lithographic apparatus includes a radiation system configured to provide a beam of radiation and a projection system configured to project a patterned beam of radiation onto a target portion of a substrate. At least one component of the apparatus that in use experiences a thermal load is made of the selected material. A device manufacturing method includes providing a beam of radiation using a radiation system, patterning the beam, and projecting the patterned beam onto a target portion of the layer of radiation-sensitive material using a projection system. At least one component of the radiation system and/or projection system that experiences a thermal load in use is made of the selected material.